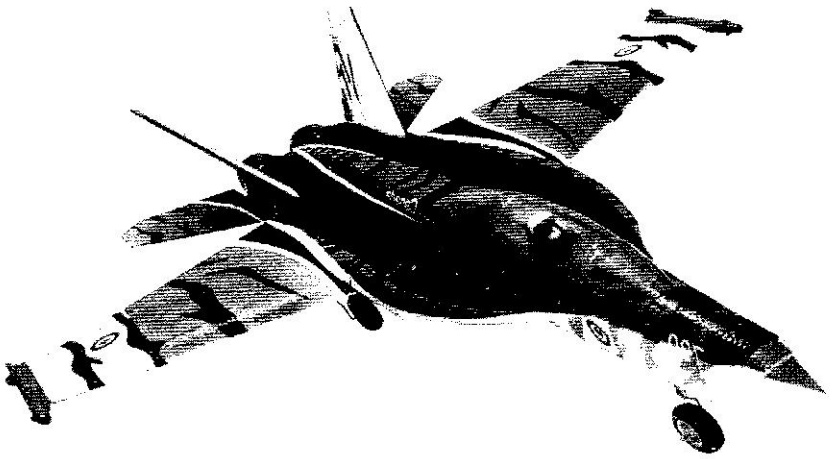
F/A 18



ASSEMBLY AND OPERATING INSTRUCTIONS
INSTRUCTIONS D'ASSEMBLAGE ET MODE D'EMPLOI
MONTAGE- UND BETRIEBSANLEITUNG
MANUALE D'USO
INSTRUÇÕES DE MONTAGEM E OPERAÇÃO
INSTRUCCIONES DE MONTAGE Y FUNCIONAMIENTO

J-POWER GROUP

ASSEMBLY AND OPERATING INSTRUCTIONS

INSTRUCTIONS D'ASSEMBLAGE ET MODE D'EMPLOI

MONTAGE- UND BETRIEBSANLEITUNG

MANUALE D'USO

INSTRUÇÕES DE MONTAGEM E OPERAÇÃO

INSTRUCCIONES DE MONTAGE Y FUNCIONAMIENTO

Congratulations on your choice of such an amazing product with high speed and high scale performance, designed for the intermediate or above average hobby enthusiast. The F/A 18 includes a 4 channel 2.4G radio system, brushless speed controller and brushless electronic motor with a 64mm ducted fan along with 9g servos to provide lasting enjoyment. This model provides a great introduction into the excitement of EDF R/C flight.

Félicitations! Votre choix s'est porté sur un modèle réduit d'avion très rapide disposant d'un niveau de détails très poussé destiné à un pilote d'un niveau confirmé (un bon niveau intermédiaire peut être suffisant). Ce kit de F/A 18 contient un ensemble radiocommandé (émetteur/récepteur) 4 voies 2.4G, un variateur et un moteur brushless ainsi qu'une turbine de 64mm de diamètre et des servos 9g qui vous procureront de longues heures de pilotage. Ce modèle vous ouvre les portes du cercle des pilotes de jets électriques radiocommandés!

Wir gratulieren Ihnen zu der Auswahl dieses Modells. Es bietet hohe Fluggeschwindigkeiten und eine vorbildgetreue Flugeigenschaften. Entwickelt wurde es für den durchschnittlich erfahrenen Flugmodellbauer. Das Set der „F/A-18" beinhaltet die 4-Kanal-Fernsteuerung, den bürstenlosen Motor mit entsprechendem Drehzahlregler, den 64-mm-Impeller und die 9-g-Servos. Dieses Modell bietet Ihnen einen idealen Einstieg in die Elektroimpellermodellfliegerei.

Congratulazioni per la scelta di questo modello F/A 18 ad alte prestazioni e disegnato per le più alte performance. L'F/A 18 nella versione RTF, include la radio 4 canali, il regolatore e motore brushless con una ventola da 64mm e 4 mini servi da 9gr. Questo modello garantisce il massimo divertimento nel volo RC.

Parabéns pela sua escolha. O F/A 18 é um aeromodelo de alto desempenho, projetado para pilotos experientes e avançados. Inclui um sistema de radiocontrole de 4 canais 2.4G, controlador de velocidade, motor elétrico brushless, turbina de 64mm de diâmetro e servos 9g.

Felicidades por la elección de este divertido producto de altas prestaciones, diseñado para modelistas intermedios y entusiatas del modelismo. El F/A 18 incluye una emisora de 4 canales 2.4G ademas de servos de 9grs. Este modelo proporciona una buena introducción al excitante vuelo turbinas R/C.

Other Items Required

Autres Elements Requis

Weiteres Zugehör Notwendig

Acccesori Richiesti

Outros Itens Necessários

Otros Productos Requeridos

Glue – Epoxy or foam safe glue (consult your model shop for advice)
Craft knife

Colle époxy ou cyanoacrylate spéciale EPP (consultez votre revendeur habituel pour plus d'informations)
Couteau de modélisme

Klebstoff – Exoxy oder Schaumstoff gefahrlos Klebstoff (bitte consultieren Sie Ihren Fachhändler)
Messer

Colla epossidica
Taglierino per modellismo

Cola epoxi ou de espuma (consulte a loja de hobby de sua preferência)
Estilete

Pegamento – Epoxy ó pegamento para foam (pregunte en su tienda)
Cuter

Specification

Caractéristiques

Technische Daten

Specifiche

Especificações

Especificaciones

Wing span:	23-7/8" (606mm)
Length:	34-3/4" (880mm)
Flying Weight:	19.5oz (550g)
Transmitter:	4CH
Receiver:	6CH
Motor:	Brushless Outrunner
Servo:	9g, 1.3kg/cm, 0.12s/60
ESC:	Brushless 30A
Battery:	11.1v 1300 mAh 3-Cells (20C) Li-polymer battery
KIT/ARF/RTF:	RTF version shown

Envergure:	606mm
Longueur:	880mm
Poids en ordre de vol:	550g
Emetteur:	4voies
Récepteur:	6voies
Motorisation:	Brushless Outrunner
Servos:	9g, 1.3kg/cm, 0.12s/60
Variateur:	Brushless 30A
Accus:	Accu Li-Po 11.1v 1300mAh 3 éléments (20C)
KIT/ARF/RTF:	La version RTF est la version présentée

Spannweite:	606mm
Länge:	880mm
Fluggewicht:	550g
Sender:	4Kanäle
Empfänger:	6Kanäle
Servo:	9g, 1.3kg/cm, 0.12s/60
Flugakku:	3s-LiPo 1.300mAh, 11.1Volt (20C)
Ausführung:	RTF (Ready to Fly)

Apertura alare:	606mm.
Lunghezza:	880mm

Peso in volo:	550grs
Trasmittente:	4CH
Ricevente:	6CH
Motore:	Brushless outrunner
Servo:	9g, 1.3kg, 0.12s/60
ESC:	30A
Batteria:	11.1V, 1300mAh 3celle(20C) Li-Po
IKIT/ARF/RTF:	In foto viene mostrata la versione RTF

Envergadura:	606mm
Comprimento:	880mm
Peso:	550g
Transmissor:	4canais
Receptor:	6canais
Motor:	Brushless J-Power
Servo:	9g,1.3kg/cm, 0.12s/60
Controlador de Velocidade:	30A Brushless
Bateria:	Li-Po 11.1V, 1300mAh 3 células (20C)
KIT/ARF/RTF:	Versão RTF mostrada nas imagens

Envergadura:	606mm
Longitud:	880mm
Peso en vuelo:	550grs
Transmisor:	4canales
Receptor:	6canales
Motor:	trifasico Outrunner
Servo:	9grs,1.3kg/cm, 0.12s/60
Variador:	Trifasico 30A
Bateria:	11.1v, 1.300mAh 3 celulas (20C) Li-Po
KIT/ARF/RTF:	Version RTF

Statement

Attention

Einführung

Avvertenze

Advertência

Nota

1. This is not a toy. It is for experienced modelers only.
2. Please adjust this plane according to instructions and make sure fingers, hands and other foreign objects are kept away from the rotating parts of the airplane motor.

3. Read all instructions thoroughly and follow the assembly instructions carefully.

1. Ce modèle réduit n'est pas un jouet! Il est destiné à des modélistes expérimentés!
2. Veuillez régler cet avion en respectant les instructions de ce manuel et veillez à ce qu'aucun objet n'empêche le bon fonctionnement des pièces en mouvement de l'avion (en particulier la turbine, ce qui pourrait provoquer de graves blessures).
3. Veillez à lire attentivement toutes les instructions d'assemblage et de manipulation. Gardez ce mode d'emploi afin de pouvoir vous y référer à tout moment.

1. Dieses Modell ist kein Spielzeug. Es ist für erfahrene Modellbauer gedacht.
2. Stellen Sie das Flugmodell genau nach der Anleitung ein. Gehen Sie sicher, dass sich keine Finger, die Hand oder auch andere Objekte im Impellerrotor befinden.
3. Lesen Sie sich die Anleitung ganz durch und folgen Sie den Zusammenbauhinweisen sorgfältig.

1. Questo modello non è un giocattolo. É adatto per piloti esperti.
2. Settare il modello come da istruzioni. Tenere lontano da mani, dita o altri oggetti/cose, le parti rotanti del modello (ventola/e).
3. Leggere attentamente le istruzioni per il montaggio.

1. O F/A18 é um aeromodelo radiocontrolado. Portanto, não é um brinquedo.
2. Regule o modelo como mostrado nesse manual. Cuidado com os dedos ou objetos estranhos na turbina ou outras partes móveis.
3. Leia totalmente o manual de instruções. Siga as instruções com toda a atenção.

1. Esto no es un juguete, Es para experimentados modelistas solamente.
2. Por favor ajuste este modelo de acuerdo con las instrucciones y tenga cuidado con los dedos, manos y otros objetos, mantegalos fuera del alcance de las partes rotatorias del motor.
3. Lea detenidamente todas las instrucciones y siga las instrucciones de montage cuidadosamente.

Safety precautions

Précautions d'emploi

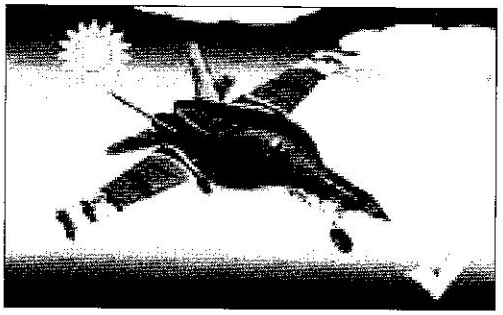
Sicherheitshinweise

Precauzioni

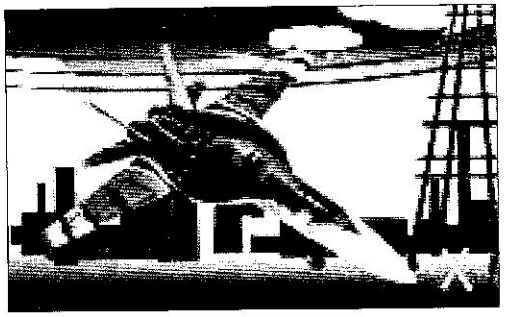
Precauções de segurança

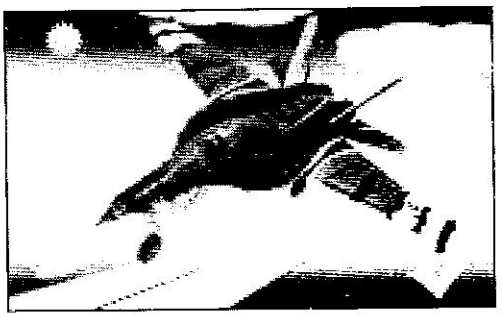
Precauciones de seguridad

(1) Do not fly in strong winds or bad weather.
(1) N'utilisez JAMAIS votre avion en cas de mauvaises conditions climatiques ou par grand vent.
(1) Fliegen Sie nicht bei starkem Wind oder schlechtem Wetter.
(1) Non volare in presenza di vento forte o maltempo.
(1) Nunca voe com muito vento ou com mau tempo.
(1) No vuele con viento fuerte ó mal tiempo.



(2) Never fly the model in crowded areas or around electrical wires. Do not fly around an active airport. Remember you are responsible for the safety of others.
(2) Ne faites JAMAIS évoluer votre avion au dessus de zones habitués ou à proximité de lignes électriques. Veillez également à ne JAMAIS faire évoluer votre avion à proximité d'autres avion (des avions grandeur en particulier). Souvenez vous que vous serez tenu pour responsable en cas d'accident.
(2) Fliegen Sie das Modell nicht in bebauten Gebieten oder auch in der Nähe von Stromleitungen. Denken Sie daran, dass Sie für Ihre Sicherheit und die der anderen verantwortlich sind.
(2) Non volare mai in prossimità di cavi ad alta tensione, vicino a luoghi con persone o vicino ad aeroporti. Sarete direttamente responsabili nel caso di mancato rispetto di queste regole.
(2) Nunca voe o F/A18 em áreas povoadas, aeroportos ou próximo à rede elétrica. Lembre-se que você é o único responsável pela sua segurança e dos outros.
(2) Nunca vuele en zonas inadecuadas ó con cables electricos. No vuele cerca de un aeródromo. Recuerde que Ud es responsable de la seguridad de los demas.





(3) This model is not intended for Children under the age of 14, adult supervision is recommended.

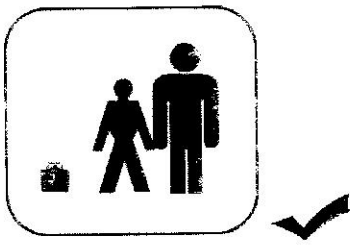
(3) Ce modèle réduit n'est pas adapté à un enfant de moins de 14 ans ! Il doit être assemblé et manipulé sous la surveillance d'un adulte.

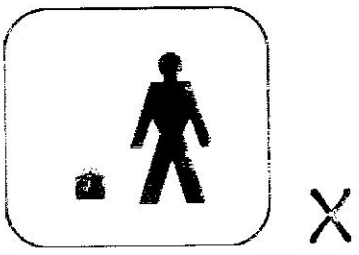
(3) Dieses Modell ist nicht geeignet für Kinder unter 14 Jahren. Eine Aufsicht durch Erwachsene wird empfohlen.

(3) Questo modello è vietato ai bambini al di sotto dei 14 anni. Si raccomanda la supervisione di personale adulto e competente.

(3) O uso desse modelo não é indicado para menores de 14 anos. A constante supervisão de um adulto é de fundamental importância.

(3) Este modelo no es adecuado para niños de menos de 14 años, la supervion de adultos es recomendada.





(4) Never expose the charger or plane to wet conditions.

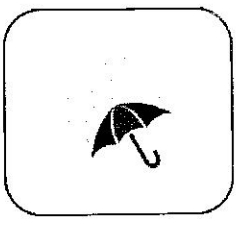
(4) Ne laissez JAMAIS votre avion ou tous les éléments électroniques (émetteur, et chargeur par exemple) exposés à l'humidité ou à la pluie, ni en plein soleil.

(4) Setzen Sie das Ladegerät oder auch das Modell nie Nässe aus.

(4) Non esporre mai il caricabatterie all'acqua o vicino a fonti di calore.

(4) Nunca molhe o carregador ou o modelc.

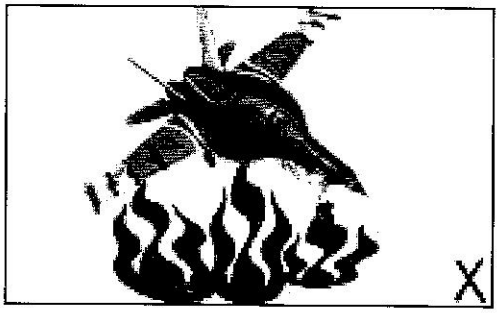
(4) Nunca expoga el cargador ó el modelo a condiciones de humedad.



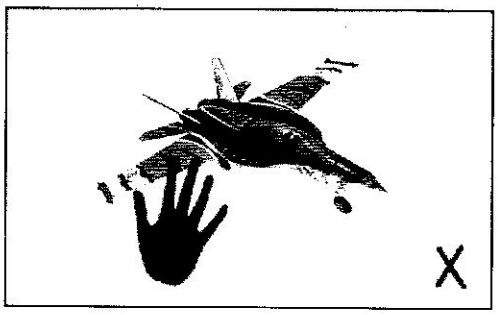
(5) The F/A 18 is flammable; keep away from open flames and heat sources.

(5) Votre F/A 18 est composé de matériaux inflammables. Ne le laissez pas à proximité de flammes vives ou d'autres sources de chaleur.

(5) Die „F/A 18“ ist brennbar. Halten Sie das Modell von offenen Flammen und Hitzequellen fern.
(5) L' F/A 18 è un prodotto infiammabile. Tenere lontano da fonti di calore.
(5) O F/A 18 é inflamável! Mantenha-o longe de chamas ou fontes de calor.
(5) El F/A 18 es inflamable; mantengalo alejado del fuego y puntos de calor.



(6) Do not attempt to catch the F/A 18.
Do not stick fingers or other foreign objects into ducted fan.
(6) Ne tentez JAMAIS de rattraper votre F/A 18 en plein vol.
Ne laissez JAMAIS vos doigt (ou tout autre objet) à proximité de la turbine.
(6) Versuchen Sie nicht das Modell zu fangen. Stecken sie weder Finger noch Fremdkörper in das Triebwerk.
(6) Non avvicinare la mani o altri oggetti alla ventola del modello.
(6) Não tente pegar o modelo. Não coloque os dedos ou objetos estranhos dentro da turbina.
(6) No intente coger el F/A 18 con la mano.
No acerque los dedos ó otros objetos a la turbina.



(7) Never leave this system unattended around children and remove the batteries when not in use.
(7) Ne confiez JAMAIS votre F/A 18 ainsi que l'émetteur à un enfant sans surveillance et retirez les accus d'émission, de réception/propulsion en cas de non-utilisation prolongée.
(7) Lassen Sie das Modell nie unbeaufsichtigt bei Kindern liegen und entfernen Sie den Flugakku, wenn das Modell nicht im Gebrauch ist.
(7) Non lasciare mai incustodito questo modello nelle vicinanze di bambini.

It Togliere sempre la batteria nel caso di inutilizzo.

(7) Mantenha o modelo longe de crianças. Remova a bateria quando não estiver em uso.

(7) Nunca deje este sistema descuidado cerca de niños y quite las baterias cuado nose use.

(8) Before flying remember to turn on the transmitter, before connecting the battery.

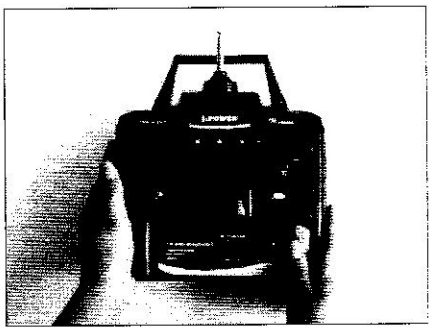
(8) Avant d'utiliser votre F/A 18, allumez TOUJOURS l'émetteur avant de connecter l'accu de réception/propulsion.

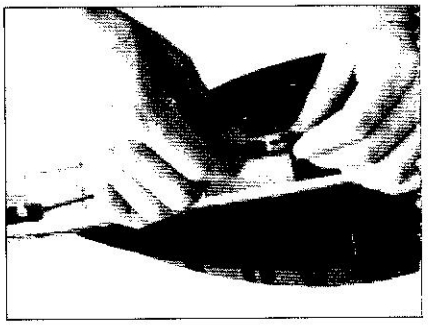
(8) Schalten Sie immer zuerst den Sender ein, bevor Sie den Flugakku anschließen.

(8) Prima di collegare la batteria, accendere sempre prima il trasmettitore.

(8) Antes de cada vôo, lembre-se de ligar sempre o transmissor em primeiro lugar. Só depois ligue a bateria.

(8) Antes de volar, recuerde encender el transmisor primero, despues conecte la bateria.





(9) Close the throttle on the transmitter before connecting battery to avoid running the motor before you are ready to fly.

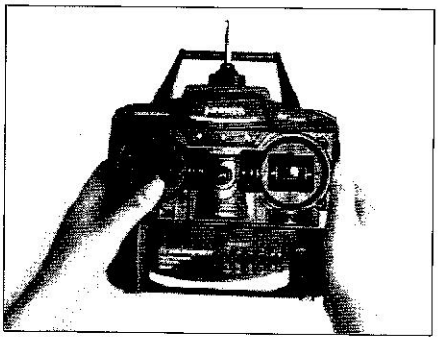
(9) Placez la commande des gaz de l'émetteur au minimum AVANT de connecter l'accu de réception/propulsion afin d'éviter que le moteur ne démarre avant que vous soyez prêt à contrôler votre avion.

(9) Stellen Sie den Gasknüppel auf Stopp, bevor Sie den Flugakku anschließen. Es verhindert ein Anlaufen des Motors.

(9) Prima di connettere la batteria, posizionare lo stick del gas tutto in basso per evitare che il motore parta improvvisamente.

(9) Reduza o acelerador no transmissor antes de conectar a bateria. Evite assim, que o motor gire antes de você estar pronto para decolar.

(9) Baje el mando de gas (motor) antes de conectar la bateria para evitar que el motor arranque antes de que Ud.este listo para volar.



(Picture shows the Model II Version)
(La photo représente un émetteur en mode 2)
(Das Foto zeigt die Mode II Version)
(Nella foto è mostrata la radio in mode 2 (gas a sinistra)
(Versão Mode II na imagem)
(La foto representa la version en Mode II)

Illustration of Assembly

Assemblage

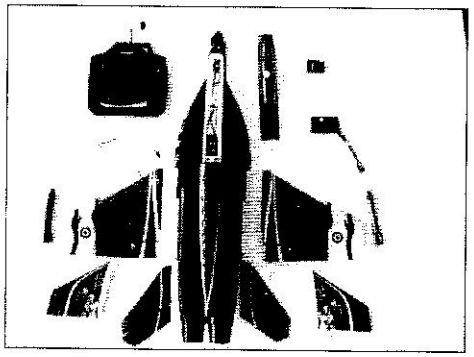
Bilder für den Zusammenbau

Istruzioni per l'assemblaggio

Instruções de montagem

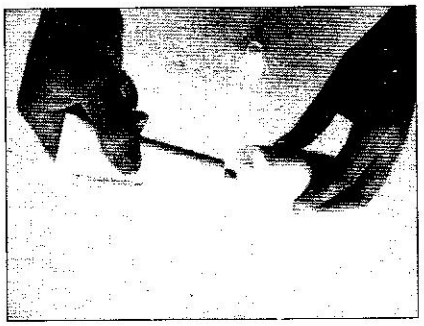
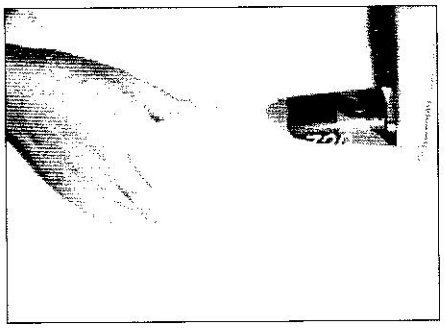
Ilustraciones de montage

(1) Open the box and check all the parts.
(1) Ouvrez la boîte et vérifiez la présence de toutes les pièces.
(1) Öffnen Sie die Box und kontrollieren Sie alle Teile.
(1) Aprire la scatola e controllare tutte le parti.
(1) Abra a caixa e confira o conteúdo.
(1) Abra la caja y compruebe todas las piezas.

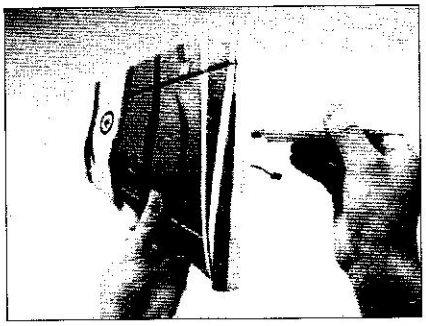
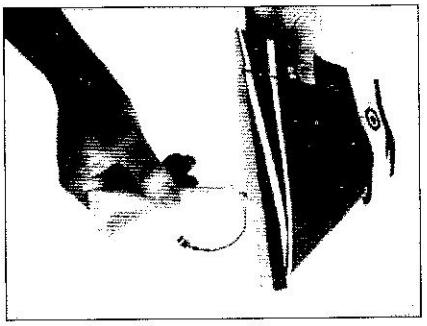


(2) Glue the nose to the front of fuselage (glue not included).
(2) Collez le nez sur la partie avant du fuselage (la colle n'est pas livrée dans le kit).

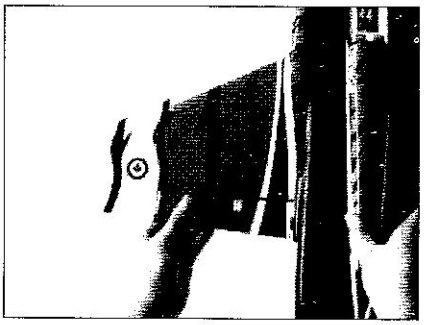
(2) Kleben Sie die Rumpfnase an die Rumpfspitze (Klebstoff gehört nicht zum Lieferumfang).
(2) Applicare la colla(non inclusa) all'interno dell'ogiva come mostrato in foto.
(2) Cole o cone do nariz na fuselagem (cola não incluída).
(2) Pegue el cono a la parte frontal del fuselage (pegamento no incluido).

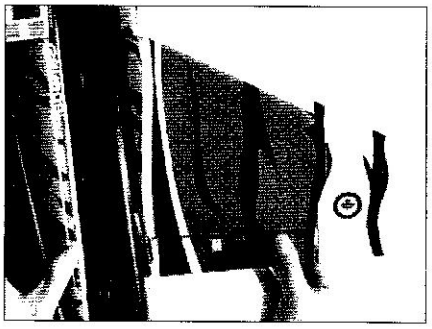



(3) Apply glue to the sides of each main wing panel (glue not included).
(3) Appliquez de la colle sur chaque emplanture d'aile (la colle n'est pas livrée dans le kit).
(3) Geben Sie Klebstoff auf die Wurzelrippen der Tragflächenhälften. (Klebstoff gehört nicht zum Lieferumfang).
(3) Applicare la colla(non inclusa) in ogni ala (come mostra la foto).
(3) Cole as laterais das asas (cola não incluida).
(3) Aplique pegamento en los lados de cada semiala (pegamento no incluido).

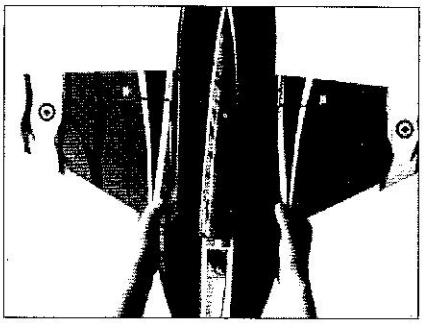



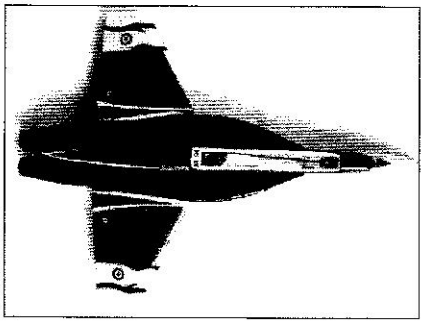
(4) Hold the fuselage gently and push each main wing to the appropriate slot in the fuselage side.
(4) Maintenez le fuselage et enfoncez chaque emplanture d'aile dans le logement qui lui correspond dans le fuselage.
(4) Halten Sie den Rumpf gut fest und stecken Sie die Tragflächenhälften an ihren Platz. Ziehen Sie dabei auch die Servokabel durch.
(4) Tenere la fusoliera ben salda ed applicare le ali nelle apposite fessure (come illustrato nella foto).
(4) Encaixe com cuidado cada asa em seu lugar.
(4) Sujete el fuselage y ponga cada semiala en las ranuras del fuselage.





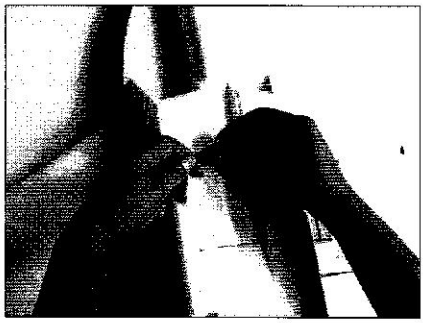
(5) Remove any excess glue and hold in position until glue sets.
(5) Retirez immédiatement tout excédent de colle, et maintenez les ailes en position sur le fuselage jusqu'à ce que la colle soit sèche.
(5) Entfernen Sie herausquellenden Klebstoff und halten Sie die Tragfläche in der Position, bis der Klebstoff ausgehärtet ist.
(5) Rimuovere la colla in eccesso e tenere le ali.
(5) Remova o excesso de cola. Mantenha as asas em seus lugares até que a cola seque totalmente.
(5) Quite cualquier exceso de pegamento y sujete en la posición hasta que el pegamento seque.

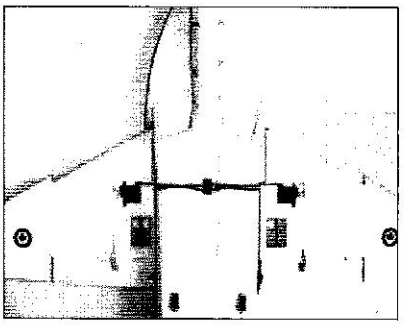




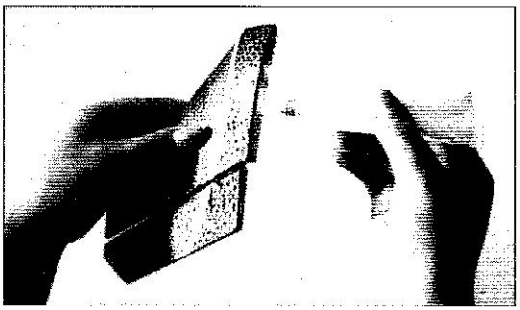
(6) Attach/glue the servos into the main wings and connect the Y-lead. Make sure that the signal wire is oriented properly. Then glue the black plastic cover to the fuselage gently.
(6) Fixez ou collez les servos sur l'aile et branchez le cordon Y. Veillez au branchement correct (polarité) du câble. Collez ensuite fermement le capot en plastique noir sur le fuselage.
(6) Kleben Sie die Servos in die Tragflächen ein und verbinden Sie sie mit den Y-Kabeln. Achten Sie auf die richtige Polung der Anschlusskabel.Kleben sie dann die Plastikabdeckungen auf.
(6) Collegare I connettori dei servi ala spina Y. Stendere il filo ricevnte verso la coda. Incollare la cover nera sotto la fusoliera del modello.
(6) Cole os dois servos e conecte a extensão em "Y". Tenha certeza de que a polaridade esteja correta. Cole a tampa plástica preta na fuselagem com cuidado.
(6) Coloque/pegue los servos en las semialas y conecte el cable Y. Asegurese

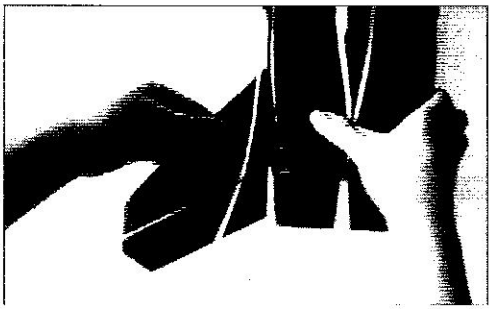
que el cable de señal esta posicionado correctamente, Luego pegue la cubierta de plastico negro.

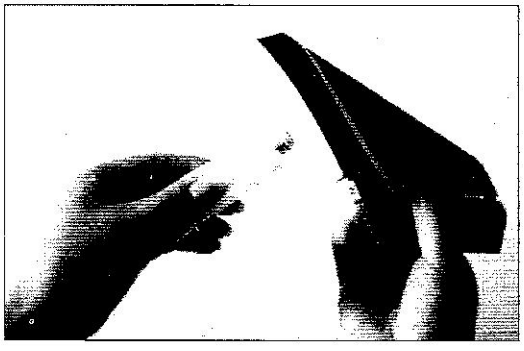


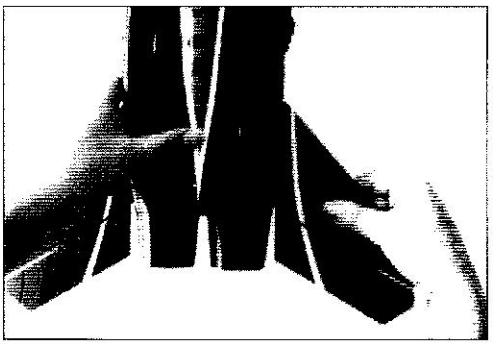


(7) Glue the horizontal tail wings to the slot at the rear of the fuselage (glue not included).
(7) Collez le stabilisateur dans l'emplacement prévu à l'arrière du fuselage (la colle n'est pas livrée dans le kit).
(7) Kleben Sie die Höhenleitwerkshälften in die vorbereiteten Schlitze seitlich im Rumpf (Klebstoff gehört nicht zum Lieferumfang).
(7) Incollare Il piano di coda orizzontale, nella parte posteriore della fusoliera (la colla non è inclusa).
(7) Cole o estabilizador horizontal na fenda na traseira da fuselagem (cola não incluida).
(7) Pegue el timòn horizontal en las ranuras de la parte trasera del fuselage (pegamento no incluido).



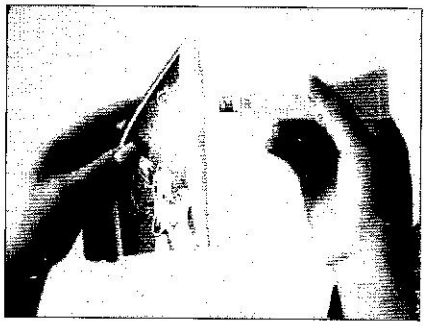
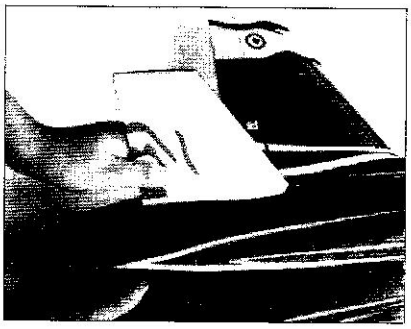
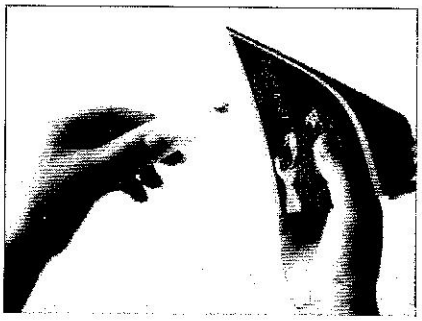
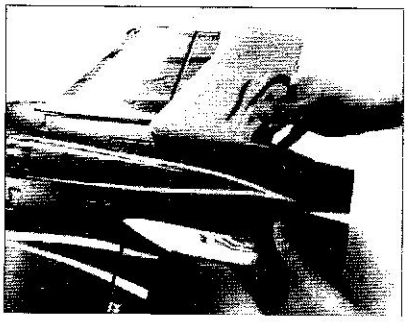




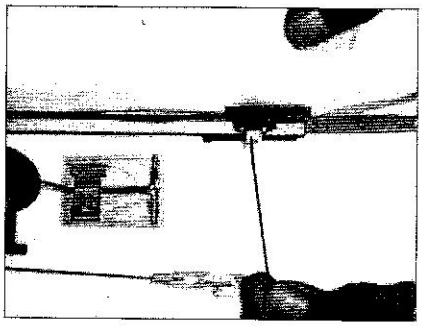
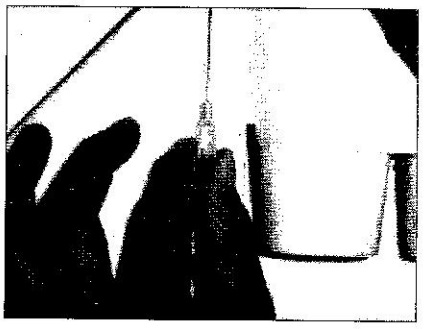


(8) Glue the vertical tail wings to the slot at the rear of the fuselage (glue not included).

(8) Collez la dérive dans l'emplacement prévu à l'arrière du fuselage (la colle n'est pas livrée dans le kit).
(8) Kleben Sie das Seitenleitwerk in den Schlitz auf der Rumpfoberseite (Klebstoff gehört nicht zum Lieferumfang).
(8) Incollare il piano di coda verticale, nella parte posteriore della fusoliera(la colla non è inclusa).
(8) Cole o estabilizador vertical na fenda na traseira da fuselagem (cola não incluida).
(8) Pegue el timón vertical dentro de la ranura trasera del fuselage (pegamento no incluido).

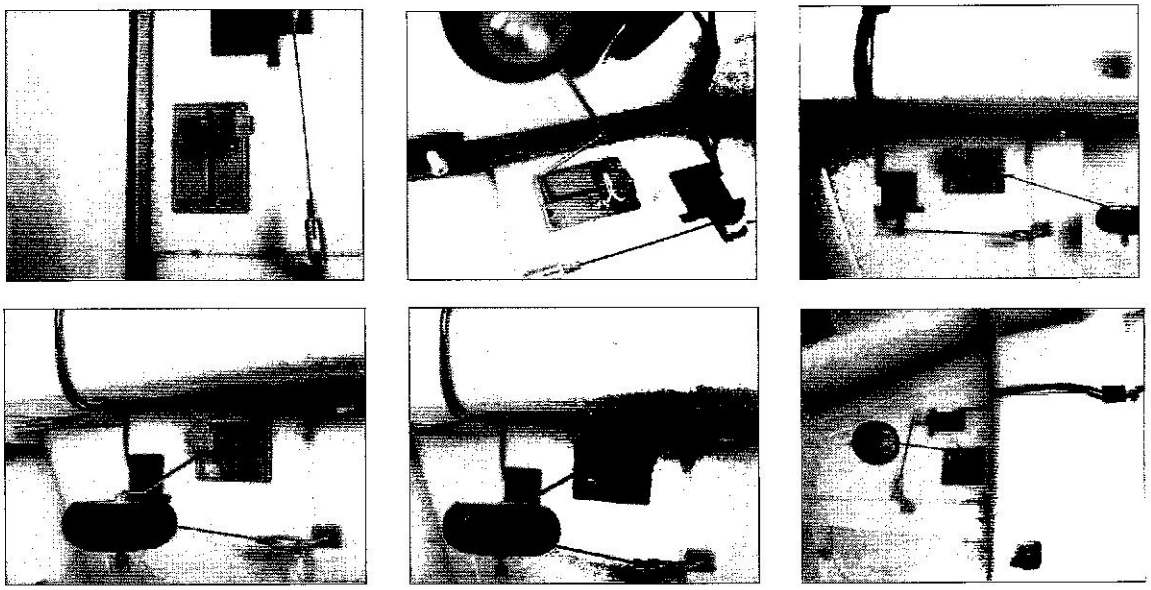





(9) Connect the servos to the horizon wings as shown below.
(9) Connectez les servos aux ailerons comme indiqué sur la photo ci-dessous.
(9) Schließen Sie die Servos an die Höhenleitwerkshälften an, wie im Bild gezeigt.
(9) Connettere i servi come mostrato in figura.
(9) Conecte os servos nas asas, como mostrado abaixo.
(9) Conecte los servos a los timones horizontales como se muestra.

(10) Fix the front landing gear and make sure the wheel is vertical to the fuselage.
(10) Fixez le train avant et veillez à son alignement par rapport au fuselage.
(10) Fixieren Sie das Bugfahrwerk mit dem Rad genau senkrecht zum Rumpf.
(10) Installare il carrello anteriore fissandolo con l'apposita vite.
(10) Prenda o trem de pouso dianteiro e certifique-se de que a roda fique perpendicular à fuselagem.
(10) Fije le tren de aterrizaje frontal asegurandose que la rueda esta vertical al fuselage.

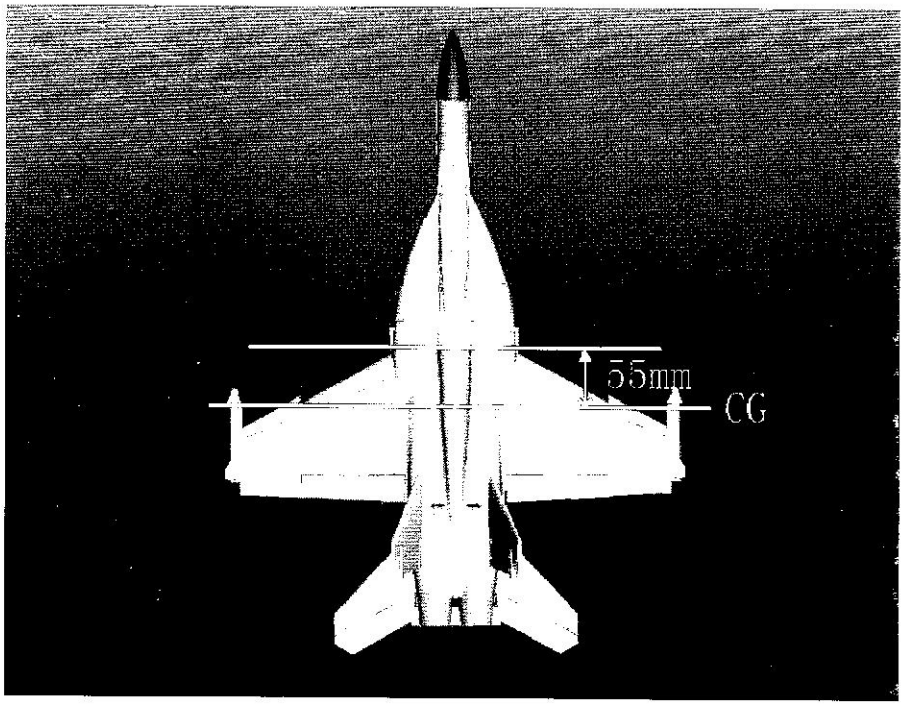
(11) Fix the main landing gear wheels.
(11) Fixez le train principal.
(11) Befestigen Sie die Räder des Hauptfahrwerks.
(11) Montare le ruote sul carrello.
(11) Instale as rodas no trem de pouso.
(11) Fije las ruedas al tren principal.



(12) Make sure the Center of Gravity (CG) is as indicated in the following diagram.
(12) Réglez le centre de gravité (CG) comme indiqué sur le schéma ci-dessous.
(12) Stellen Sie sicher, dass der Schwerpunkt wie in der Zeichnung gezeigt eingestellt wird.
(12) Assicurarsi che il centro di gravità (CG) sia come indicato nelle foto.

(12) Tenha certeza de que o Centro de Gravidade (CG) esteja correto, como mostrado no diagrama.

(12) Asegurese que el Centro de Gravedad (CG) esta como se indica en el siguiente diagrama.



(13) The ESC (Electronic Speed Control) and brushless motor can be changed, as indicated in the illustrations below.

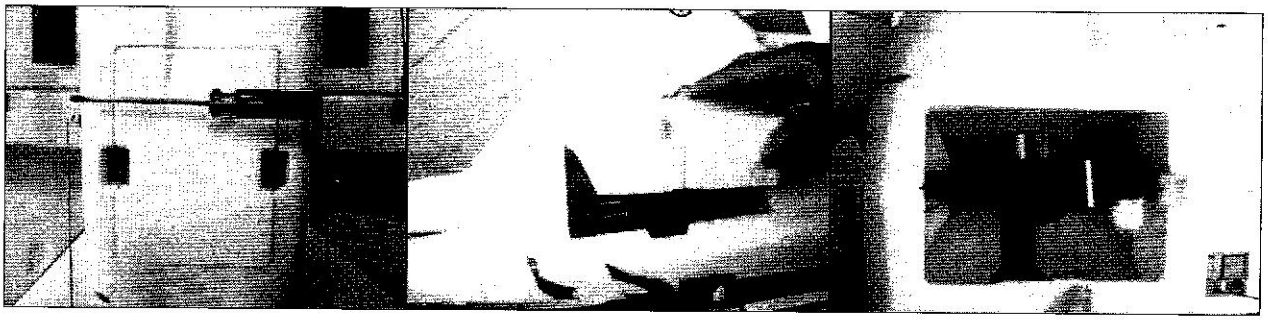
(13) Le variateur (Electronic Speed Control) et le moteur brushless peuvent être remplacés en vous référant aux illustrations suivantes.

(13) Drehzahlregler und Elektromotor können ausgetauscht werden, wie es in den Bildern gezeigt wird.

(13) Il regolatore (ECS) e motore brushless, possono essere sostituiti facilmente come indicato nelle illustrazioni di seguito.

(13) O Controlador de Velocidade e o motor podem ser trocados, como mostrado na ilustração.

(13) El ESC (Variador de velocidad) y el motor trifasico pueden ser cambiados, como se muestra el la ilustración inferior.



Notice!

Attention!

Wichtig!

Importante!

Advertência!

Aviso!

Allow the glue to dry thoroughly (according to the manufacturers recommendations) before flying your airplane. Glue must cure properly to obtain maximum strength.

Veillez à ce que TOUS les collages que vous avez réalisé lors de l'assemblage de votre avion soient totalement solidifiés (référez-vous aux recommandations fournies par le fabricant de la colle utilisée) avant de faire voler votre F/A 18. La colle doit être totalement sèche afin d'obtenir un maximum de solidité.

Lassen sie, bevor Sie mit dem Modell zum Fliegen gehen, den Klebstoff gut aushärten. Befolgen Sie dabei die Anweisungen des Herstellers. Erst wenn der Klebstoff richtig ausgehärtet ist, entwickelt er seine Kraft.

Prima di volare assicurarsi che le varie parti siano perfettamente incollate (rispettare I tempi di asciugatura come indicato dal produttore della colla).

Deixe a cola secar totalmente, conforme as orientações do fabricante, antes de voar o modelo.

Deje que el pegamento seque a fondo (de acuerdo con las recomendaciones del fabricante) antes de volar su modelo. El pegamento tiene que estar bien seco para obtener la maxima fuerza.

Preparation before flight

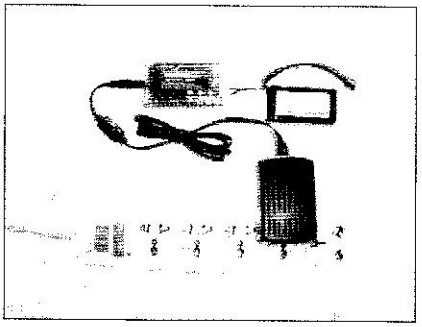
Préparation avant chaque vol

Vorbereitungen vor dem Fliegen

Preparazione prima del volo

Preparação antes de voar

Preparativos antes del vuelo



Charge the battery. When indicator shows green, battery is fully charged.

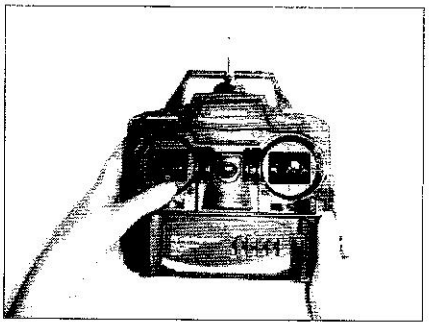
Chargez le pack d'accus dans un sac de sécurité. Lorsque le voyant est vert, l'accu est totalement.

Laden Sie den Flugakku. Wenn die Lampe grün aufleuchtet ist der Akku vollgeladen.

Caricare la batteria (come indicato nella foto). Quando il led verde è acceso, la batteria sarà completamente carica.

Carregue a bateria. Quando o Led Verde Acender, a bateria está carregada.

Cargue la bateria. Cuando el indicador este verde, la bateria estarà cargada.



Throttle in lowest level with trim set in the middle.

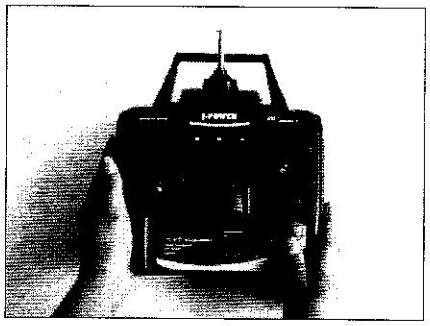
Le manche des gaz doit être en bas et le trim placé au milieu.

Stellen Sie den Gasknüppel auf Stopp und die Trimmung genau in die Mitte.

Abbassare fino in fondo lo stick del gas e trim.

Stick do acelerador na posição mais baixa.

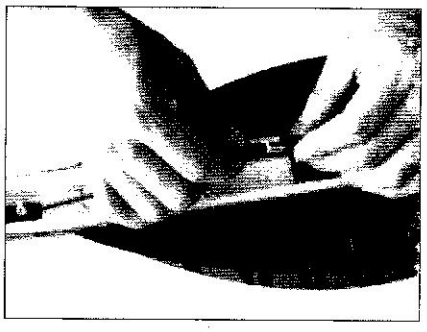
Corte de motor posición abajo trim situado en el centro.



Turn on the transmitter.

Allumez l'émetteur.

Schalten Sie den Sender ein.



Connect Li-Po battery and then adjust the elevator and rudder.

Branchez le pack d'accus Li-Po puis ajustez les gouvernes de profondeur et de direction.

Schließen Sie den Flugakku an und stellen Sie Höhenruder und Seitenruder ein.

Accendere la trasmittente.

Collegare la batteria e con I trim regolare in posizione neutra I comandi.

Ligue o transmissor.

Conecte a bateria Li-Po.
Regule o profundor e o leme.

Conecte el transmisor.

Conecte la bateria Li-Po y ajuste el elevador y el timon.

Flight preparation

Préparation au vol

Flugvorbereitung

Preparazione al volo

Preparando para voar

Preparativos para el vuelo

Make sure that the AA batteries (not included) in your transmitter are fresh and the antenna is fully extended to ensure maximum range for your aircraft. If you believe the plane is going to crash, cut throttle immediately to minimize damage.

Veillez à équiper votre émetteur de piles AA (non fournies dans le kit) neuves. Déployez totalement l'antenne afin d'assurer une portée maximale à votre émetteur. En cas de perte de contrôle de votre avion durant un vol, coupez les gaz afin de minimiser les dégâts éventuels.

Stellen Sie sicher, dass die Batterien im Sender (nicht im Lieferumfang) noch genug Kapazität haben und die Antenne am Sender ganz ausgezogen ist. Sollten Sie im Fluge die Kontrolle verlieren, drosseln Sie den Motor sofort um die Beschädigungen am Modell zu minimieren.

Assicurarsi che le batterie del trasmettitore (8 stilo tipoAA non incluse) siano cariche e l'antenna sia completamente estesa per garantire il massimo segnale. Nel caso si perda il controllo dell'aereo, ridurre al minimo il gas per evitare maggiori danni.

Tenha certeza de que as pilhas tamanho AA no transmissor (não incluídas), sejam novas e que a antena do transmissor esteja totalmente estendida, assegurando o máximo alcance do rádio.

Asegurese de que las baterias AA (no incluidas) de su transmisor estan en buen estado de carga y la antena esta totalmente extendida para asegurar el maximo alcance en su avión. Si en algun momento su avión corre peligro de rotura, corte

el motor inmediatamente, para minimizar los daños.

Flight adjustment

Réglages durant le vol

Flugeinstellungen

Regolazioni di volo

Regulagens

Ajustes de vuelo

1. F/A 18 will fly best with fully-charged batteries.
2. Maintain straight flight: when you find it is difficult to fly straight, adjust the trim on the transmitter.
3. Keep a level flight path: if you find that the F/A 18 climbs or dives, adjust the elevator trim on the transmitter.

1. Votre F/A 18 disposera de performances maximum avec des accus totalement chargés.
2. Obtention d'un vol tendu: Si vous éprouvez des difficultés à faire voler votre F/A 18 de façon tendue (vol rectiligne), ajustez les trims sur l'émetteur.
3. Respect de l'espace d'évolution: Si vous estimez que votre F/A 18 a tendance à monter ou plonger de façon trop importante, ajustez également les trims sur l'émetteur.

1. Die " F/A 18" fliegt am besten mit voll geladenem Flugakku.
2. Sollte das Modell nicht geradeaus fliegen, stellen Sie mit der Trimmung am Sender einen Geradeausflug ein.
3. Sollte das Modell von alleine steigen oder sinken, stellen Sie mit der Trimmung am Sender einen Geradeausflug ein.

1. L' F/A 18 garantisce le migliori prestazioni di volo, quando le batteria sono al massimo della carica.
2. Durante il volo orizzontale, regolare I trim dal trasmettitore per mantenere un assetto di volo ottimale.
3. Nel caso il modello si alza o abbassa intervenire sul trim dell'elevatore.

1. O F/A 18 tem seu melhor desempenho com a bateria totalmente carregada.
2. Faça um vôo reto. Se você achar difícil manter o modelo reto, regule o Trim no transmissor.
3. Mantenha o mesmo nível. Se o modelo subir ou descer sozinho, regule o Trim do profundor.

1. F/A 18 volará mejor con las baterias totalmente cargadas.
2. Mantenga el vuelo recto: cuando resulte dificil mantener el vuelo recto, ajuste

los trims del transmisor.

3. Mantenga el nivel de vuelo: Si su F/A 18 sube ó baja, ajuste el trim de elevador en el transmisor.

Flight attention

Règles de pilotage à respecter

Sicherheitshinweise zum Fliegen

Precauzioni di volo

Advertências sobre o vôo

Atenciónes de vuelo

(1) Never fly in windy conditions or bad weather.
(1) N'utilisez JAMAIS votre avion en cas de mauvaises conditions climatiques ou par grand vent.
(1) Fliegen Sie nicht bei starkem Wind oder schlechtem Wetter.
(1) Mai volare in condizioni di vento forte o maltempo.
(1) Nunca voe com ventos ou mau tempo.
(1) Nunca vuele en condiciones ventosas ó de mal tiempo.

(2) Always check for other modelers who may be using the same radio frequency before turning on your transmitter.
(2) Vérifiez TOUJOURS qu'aucun autre modéliste n'utilise la même fréquence que vous avant d'allumer votre émetteur.
(2) Bevor Sie den Sender einschalten, sprechen Sie sich immer mit anderen Modellfliegern ab, damit es keine doppelte Belegung Ihrer Sendefrequenz gibt.
(2) Verificare che nessun' altro voli con la vostra stessa frequenza.
(2) Antes de ligar o transmissor, tenha certeza de que não há outros modelos na mesma frequência.
(2) Siempre compruebe con otros modelistas la frecuencia del transmisor, antes de encender.

(3) There are two ways to take off: (always toward the direction the wind is coming from)
Launching F/A 18 by hand: maximize the power (including the micro adjustment) and run several feet (meters) to accelerate yourself and the plane, then throw the F/A 18 horizontally into the wind. Refer to the illustration below:
Launching F/A 18 on a runway: maximize the power and let F/A 18 accelerate, keeping it running straight. After about 60 feet (20 meters), you can pull back on the elevator joy stick, and the plane should take off.
(3) Il y a deux possibilités pour faire décoller votre F/A 18: (toujours face au vent)
Lancer votre F/A 18 à la main: Poussez le manche des gaz de l'émetteur au

maximum (y compris les trims) courrez sur quelques mètres afin de faire accélérer l'avion, puis lancez le F/A 18 horizontalement face au vent. Référez-vous à l'illustration ci-dessous:

Faire décoller votre F/A 18 à partir d'une piste: Poussez le manche des gaz de l'émetteur au maximum (y compris les trims) et laissez le F/A 18 accélérer en ligne droite. Après une vingtaine de mètres, tirez sur le manche de profondeur afin de faire décoller votre avion.

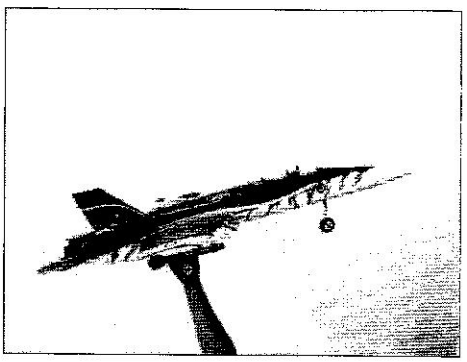
(3) Gestartet wird immer genau gegen Wind. Sie können die „F/A 18" aus der Hand starten: Stellen Sie den Motor auf volle Leistung (auch die Trimmung) und laufen Sie ein paar Meter um dem Modell die nötige Geschwindigkeit zu geben. Schieben Sie das Modell dann geradeaus in den Wind, wie auch auf der Zeichnung dargestellt. Mit dem Fahrwerk können Sie das Modell auch vom Boden starten: Geben Sie Vollgas und lassen Sie das Modell geradeaus Geschwindigkeit aufnehmen. Nach circa 20 Metern können Sie das Höhenruder ziehen und das Modell hebt ab.

(3) Lanciare con la mano il modello controvento e accellerare con lo stick del gas al massimo(anche il trim di regolazione deve essere al massimo) fino a d arrivare ad un'altezza minima di circa 20 metri.

(3) Decole sempre contra o vento. Existem 2 formas de decolar o F/A 18: Acelere totalmente.Corra alguns metros e lance-o com as mãos para frente, horizontalmente. Veja a ilustração abaixo. A outra forma é decolar de uma pista. Acelere totalmente. Deixe-o ganhar velocidade em linha reta. Depois de 20 metros, puxe para trás o stick do profundor. Veja ilustração abaixo.

(3) Despegue: (Siempre contra el viento)

El F/A 18 puede ser lanzado facilmente a mano. Aumente el corte de motor al maximo (incluido el micro ajuste) y lance el F/A 18 horizontal al viento, como se muestra abajo.



(4) Only 30% of the maximum power is needed to keep the F/A 18 flying. To extend your flying time it is a good idea use both power and gliding techniques.

(4) Seulement 30% de la puissance délivrée par l'accu est nécessaire au maintien en vol du F/A 18. Afin de prolonger votre temps de vol, vous pouvez associer l'utilisation de la propulsion et les techniques de vol à voile utilisées par les pilotes de planeur.

(4) Zum normalen Fliegen reichen rund 30 Prozent Motorleistung. Um die

Flugzeit auszuweiten können Sie abwechselnd mit Motorkraft und als Gleiter fliegen.

(4) Per avere maggior autonomia di volo non utilizzare sempre al massimo il motore. L' F/A 18 per volare ha necessità di avere almeno il 30% di gas.

(4) O F/A 18 voa com apenas 30% da potência do motor. Aumente a autonomia de vôo alternando aceleração e planeio.

(4) Con el 30% de potencia el F/A 18 se mantiene en vuelo. Para aumentar el tiempo de vuelo es un buena idea usar la tecnica de motor y planeo.

(5) Before landing, reduce the power and fly the model into the wind. When the F/A 18 nears the ground, you may ease the elevator joystick back and F/A 18 will land gently.

(5) Avant d'atterrir, réduisez la puissance tout en amenant votre modèle face au vent. Lorsque votre F/A 18 se rapproche du sol, vous pouvez repousser lentement le manche de profondeur afin de faire atterrir votre appareil en douceur.

(5) Zum Landen reduzieren Sie die Motorleistung und fliegen mit dem Modell genau gegen den Wind. Kurz über dem Boden schalten Sie den Antrieb ganz ab und ziehen leicht am Höhenruder. Dann wird die „F/A 18" sanft aufsetzen.

(5) Prima di atterrare ridurre il gas e volare in direzione contro vento.

(5) Antes de pousar, reduza a potência contra o vento. Quando próximo do solo, você pode soltar o stick do profundor e pousar o F/A 18 suavemente.

(5) Antes de aterrizar, reduzca la potencia y vuele el modelo contra el viento. Cuando el F/A 18 se acerque al suelo, tire muy suavemente de la palanca del elevador y el F/A 18 aterrizará suavemente.

J-POWER

J-POWER GROUP CO., LIMITED

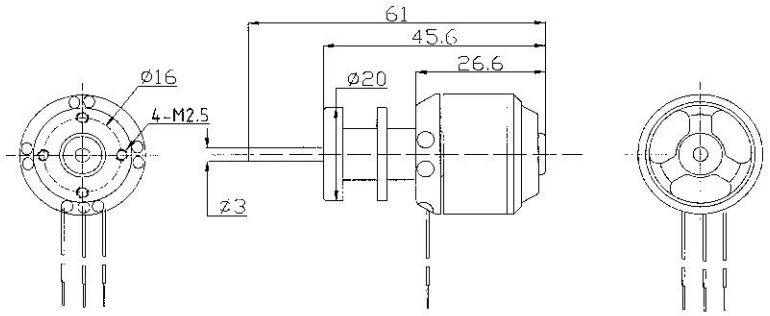
4th A4 Building, Xinjianxin Technology Industrial Park, Fengxin Road
Guangming Town, Bao'an, Shenzhen City, China 518107
Phone: +86 755 3369 9201
Fax: +86 755 3369 9203
www.jpower.hk

J-POWER

D2627-3950kv Parameter for EDF64

New type motor in length stator and rotor with higher torque.It has strengthen power stock.This type used EDF64(5 leaves) ducted fan,it is the best choosen for the ducted fan planes.

Specification
No.of cells:2-3 LI-poS
RPM/V(KV):3950
Max.efficiency:87%
Max.efficiency current:22-26A
No load current:11.1V/1.5A
Current capacity:35A/20S
Internal Resistance:0.04 OHM
Dimensions(diameter.X length): Φ25.8X45.6 mm
Shaft diameter:Φ3.0mm
Weight:48g



USED	WEIGHT OF MOTOR	LI-PO CELLS	CURRENT MAX	ESC	PROPELLER	PULL
ducted fan PLANE	48g	3S	22A/20S	30A	EDF64 (5 leaves)	500g

J-POWER

Brushless Electronic Speed Controller(ESC)

Operation Manual

Thank you for purchasing J-POWER Brushless Electronic Speed Controller(ESC).

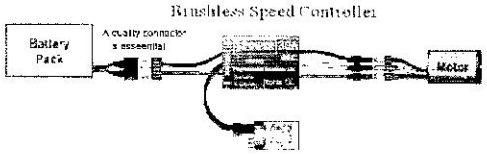
High power systems for RC model can be very dangerous and we strongly suggest that you read this manual carefully. J-POWER Model have no control over the use, installation, application, or maintenance of these products, thus no liability shall be assumed nor accepted for any damages, losses of costs resulting from the use of this item. Any claims arising from the operating, failure or malfunctioning etc. will be denied. We assume no liability for personal injury, property damage or consequential damages resulting from our product or our workmanship. As far as is legally permitted, the obligation for compensation is limited to the invoice amount of the product in question.

The J-POWER ESC's high power BEC has been specifically designed for extreme aerobatics and therefore has the capability to support the higher momentary peak demand loads to eliminate the possibility of unwanted shutdowns, and is also capable of supporting continuous simultaneous multiple servo operations typically found in CCPM equipped hardcore 3D E-helicopters.

Wires Connection:

The speed controller can be connected to the motor by soldering directly or with high quality connectors. Always use new connectors, which should be soldered carefully to the cables and insulated with heat shrink tube. The maximum length of the battery pack wires shall be within 6 inches.

- Solder controller to the motor wires.
- Solder appropriate connectors to the battery wires.
- Insulate all solder connectors with heat shrink tubes.
- Plug the "JR" connector into the receiver throttle channel.
- Controller Red and Black wires connects to battery pack Red and Black wires respectively.



Specification:

Type	Cont. Current(A)	Burst Current (A) 10 sec.	Battery cell NiXX/Lipo	Weight (g)	BEC Output	Size (mm) W*L*H	User Program
A-J-POWER8A	8A	10A	5-12 NC \ 2-4 Lipo	10	5V / 1A	21 x 22 x 4	yes
A-J-POWER12A	12A	16A	5-12 NC \ 2-4 Lipo	10	5V / 1A	21 x 22 x 4	yes
A-J-POWER20A	20A	30A	5-12 NC \ 2-4 Lipo	20	5V / 2A	23 x 33 x 6	yes
A-J-POWER30A	30A	40A	5-12 NC \ 2-4 Lipo	25	5V / 2A	23 x 43 x 6	yes
A-J-POWER40A BEC	40A	60A	5-12 NC \ 2-4 Lipo	25	5V/ 3A	23 x 43 x 6	yes
A-J-POWER40A SBEC	40A	60A	5-18NC \ 2-6 Lipo	30	5.5V / 4A	23 x 52x 7	yes
A-J-POWER50A BEC	50A	70A	5-12NC \ 2-4 Lipo	30	5V / 3A	23 x 52x 6	yes
A-J-POWER50A SBEC	50A	70A	5-18NC \ 2-6 Lipo	30	5.5V / 4A	23 x 52x 7	yes
A-J-POWER50A OPTO	50A	70A	5-18 NC \ 2-6 Lipo	30		23 x 52x 6	yes
A-J-POWER60A SBEC	60A	80A	5-18NC \ 2-6 Lipo	35	5.5V / 4A	23 x 52x 14	yes
A-J-POWER 70A SBEC	70A	90A	5-18NC \ 2-6 Lipo	35	5.5V/4A	23 x 52x 14	yes
A-J-POWER85A BEC	85A	100A	5-12 NC \ 2-4 Lipo	47	5V /3A	34 x 52x 14	yes
A-J-POWER85A SBEC	85A	100A	5-18NC \ 2-6 Lipo	47	5.5V /4A	34 x 52x 14	yes
A-J-POWER85A OPTO	85A	100A	5-18 NC \ 2-6 Lipo	47		34 x 52x 14	yes
A-J-POWER110A OPTO LV	110A	120A	5-18 NC \ 2-6 Lipo	75		34 x52 x 20	yes
A-J-POWER100A OPTO HV	100A	120A	16-32NC\5-10Lipo	75		34 x52 x 20	yes

Features:

- Extremely low internal resistance
- Super smooth and accurate throttle linearity
- Safety thermal over-load protection
- Auto throttle shut down in signal lose situation
- Supports high RPM motors
- Power arming protection(prevents the motor from accidentally running when switched ON)
- New Advanced programming software

Our ESC allows you to program all functions to fit your specific needs, which makes it very efficient and user friendly:

1. User programmable brake setting(we recommend using brake for only folding props applications)
2. User programmable battery type(LiPo or NiCd/NiMh)
3. User programmable low voltage cutoff setting
4. User programmable factory default setup restore
5. User programmable timing settings(to enhance ESC efficiency and smoothness)
6. User programmable soft acceleration start ups (for delicate gearbox and helicopter applications)
7. User programmable governor mode(for helicopter applications)
8. User programmable motor rotation(clockwise\counterclockwise)
9. User programmable switching frequency
10. User programmable low voltage cutoff type(power reduction or immediate shutdown)

Settings:

1.Brake: ON/OFF

* ON-Sets the propeller to the brake position when the throttle stickis at the minimum position (Recommended for folding props).
* OFF-Sets the propeller to freewheel when the throttle stick is at the minimum position.

2.Battery type: LiPo or NiCad/NiMh

* NiCad/NiMh – Sets Low Voltage protection threshold for NiCad/NiMh cells.
* LiPo – Sets Low voltage protection threshold for LiPo cells and automatically detects the number of cells within the pack.

Note: Selecting the NiCad/NiMh option for the battery type, triggers the ESC to automatically set the cutoff threshold to the factory default of 65%. The cutoff threshold can then be subsequently altered through the Low Voltage protection function, if required. The ESC will read the initial voltage of the NiCad/NiMh pack once it is plugged in and the voltage read will then be used as a reference for the cutoff voltage threshold.

3.Low Voltage Protection Threshold (Cutoff Threshold):

Low / Medium / High

1) For Li-xx packs- number of cells are automatically calculated and requires no user input apart from defining the battery type. This ESC provides 3 setting options for the low voltage protection threshold ; Low (2.8V)/ Medium (3.0V)/ High (3.2V). For example: the voltage cutoff options for an 11.1V/ 3 cell Li-Po pack would be 8.4V (Low)/ 9.0V(Med)/ 9.6V(High)

2) For Ni-xx packs-low / medium / high cutoff voltages are 50%/65%/65% of the initial voltage of the battery pack.. For example: A fully charged 6 cell NiMh pack's voltage is 1.44V x 6=8.64V,when "LOW" cutoff voltage is set, the cutoff voltage is: 8.64V x 50%=4.3V and when "Medium" of "High" is set, the cutoff voltage is now 8.64V X 65%=5.61V.

4. Restore factory setup defaults:

Restore- Sets the ESC back to factory default settings;

Brake:	off
Battery type Detect:	LiPo with Automatic Cell
Low voltage cutoff threshold:	Medium (3.0V/65%)
Timing setup:	Automatic
Soft Acceleration Start Up:	Medium
Governor mode :	OFF
Frequency :	8kHz
Low voltage cutoff type:	Reduce power

5.Timing setup: Automatic/ Low / High.

* Automatic – ESC automatically determines the optimum motor timing
* Low(7-22 deg) – Setting for most 2 pole motors.
* High(22-30 deg)-setting for motors with 6 or more poles.

In most cases, automatic timing works well for all types of motors. However for high efficiency we recommend the Low timing setting for 2 pole motors(general in-runners) and high timing for 6 poles and

above(general outrunners). For higher speed, High timing can be set. Some motors require different timing setups therefore we suggest you to follow the manufacturer recommended setup or use the automatic timing setting if you are unsure.
Note: Run your motor on the ground first after making any changes to your motor timing!

6.Soft Acceleration Start ups: Very Soft / Soft Acceleration/ Start Acceleration

* Very Soft – Provides initial slow 1.5 sec ramp-up from start to full rpm intended to protect delicate gears from stripping under instant load. This setting is recommended for either fixed wing models equipped with gearboxes and / or helicopters.
* Soft Acceleration- Provides initial slow 1 sec ramp-up from start to full rpm. This setting is recommended for either fixed wing models equipped with gearboxes and or helicopters.
* Start Acceleration – Provides quick acceleration start ups with a linear throttle response. This is recommended for fixed wing models fitted with direct drive setups.

7.Active RPM Control (Heli Governor mode)

* rpm control off

* first range: There will be a 5-second delay from start to full rpm, but if the throttle is cutoff after starting, then the next start will be as normal start.

* second range: There will be a 15-second delay from start to full rpm, but if the throttle is cutoff after starting, then the next start will be as normal start.

Note: Once the Governor Mode is enabled, the ESC's Brake and Low Voltage Cutoff Type settings will automatically be reset to No Brake and Reduce Power respectively regardless of what settings they were previously set.

8.Motor Rotation: Reverse

In most cases motor rotation is usually reversed by swapping two motor wires. However, in cases where the motor cables have been directly soldered the ESC cables, motor rotation can be reversed by changing the value of setting on the ESC.

9.Switching Frequency: 8kHz/16kHz

* 8kHz – Sets ESC switching frequency for 2 pole motors, e.g. in-runners.
* 16kHz – Sets ESC switching frequency for motors with more than 2 poles, e.g. out-runners.

Although 16kHz is more efficient with our Thrust motors, the setup
default is 8kHz due to the higher RF noises caused at 16kHz.

10.Low Voltage Cutoff Type: Reduce Power / Hard cutoff

* Reduce Power – ESC reduces motor power when the pre-set(recommended).
* Hard Cutoff – ESC instantly cuts motor power when the pre-set Low Voltage Protection Threshold value is reached.

Programming Mode Audible Tones

Programming Mode Audible Tones	ESC Functions
1 Throttle Calibration	
(within the first 4 Sec)• • • •	
Brake	
* * * *	Brake On /Off
2 Battery type	
~ ~ ~ ~	NiCad
~-~ ~-~ ~-~ ~-~	LiPo
3 Low Voltage Cutoff Threshold	
* * * * * * * *	Low2.8V/50%
* * * * * * * *	Medium3.0V/60%
* * * * * * * *	High3.2V/65%
4 Restore Factory Setup Defaults	
— — — —	Restore
5 Timing Setup	
– – – –	Automatic (7-30°)
— — — —	Low (7-22°)
— — — —	High (22-30°)
6 Soft Acceleration Start Ups	
\/\/ \/\/ \/\/ \/\/	Very Soft
\/ \/ \/ \/	Soft Acceleration
\/\/\/ \/\/\/ \/\/\/ \/\/\/	Start Acceleration
7 Governor Mode	
* * * *	Rpm off
** ** ** **	Heli first range
*** *** *** ***	Heli second range
8 Motor Rotation	
W W W W	Positive/ Reverse
9 Switching Frequency	
// // // //	8kHz
\\ \\ \\ \\	16kHz
10 Low Voltage Cutoff Type	
– – – –	Reduce Power
— — — —	Hard Cut Off

Using Your New ESC

Improper polarity or short circuit will damage the ESC therefore it is your responsibility to double check all plugs for proper polarity and firm fit BEEORE connecting the battery pack.

Alert Tones

The J-POWER ESC is equipped with audible alert tones to indicate abnormal conditions at power up.

1. If ESC can't enter into working mode after powering up, it indicates that you have not setup throttle calibration.
2. Continuous beeping tone (****) – Indicates that throttle stick is not in the minimum position.
3. Single beeping tone followed by a one second pause (* * * *)– Indicates that the battery pack voltage is not within the acceptable range. (The ESC automatically checks and verifies the battery voltage once the battery is connected).
4. A single beeping tone followed by a short pause (* * * *) – Indicates that the ESC is unable to detect the normal throttle signal from the receiver.

Built-in Intelligent ESC Safety Functions

1. Over-heat protection: When the temperature of ESC exceed 110 deg C, the ESC will reduce the

output power to allow it too cool.

2. Lost Throttle signal protection: The ESC will automatically reduces output power to the motor when it detects a lost of throttle signal for 2 second, a subsequent loss of throttle signal beyond 2 seconds, will cause the ESC automatically to cut power to the motor.

Powering up the ESC for the first time and setting the Automatic Throttle Calibration

The J-POWER ESC features Automatic Throttle Calibration to attain the smoothest throttle response and resolution throughout the entire throttle range of your transmitter. This step is done once to allow the ESC to "learn and memorize" your Transmitter's throttle output signals and only repeated if you change your transmitter.

1. Switch your Transmitter ON and set the throttle stick to its maximum position.
2. Connect the battery pack to the ESC. Wait for about 2 seconds, the motor will beep for twice, then put the throttle in the minimum position, the motor will also beep, which indicates that your ESC has got the signal range of the throttle from your transmitter.

The throttle is now calibrated and your ESC is ready for operation.

Normal ESC start up procedure:

1. Switch your Transmitter ON and set the throttle to its minimum position.
2. Connect the battery pack to the ESC.
3. When the ESC is first powered up, it emits two sets of audible tones in succession indicating the status of its programming state.

* The first set of tones denotes the number of cells in the LiPo pack connected to the ESC.
(Three beeps (***)indicates a 3 cell LiPo pack while 4 beeps (****) indicates a 4 cell LiPo pack).

* The second set denoting Brake status (one beep(*) for Brake "ON" and two beeps (**) for Brake "OFF").

*The ESC is now ready for use.

Entering the Programming Mode:

1. Switch your Transmitter **ON** and set the throttle to its **maximum** position.
2. Connect the battery pack to the ESC.
3. Wait until you hear two short beeps (_ _**) confirming that the ESC has now entered the programming mode.
4. If within 5 seconds, the throttle stick is lowered to its **minimum** position, an audible tone is emitted confirming that the throttle calibration setting has changed. If the throttle stick is left in the **maximum** position beyond 5 seconds, the ESC will begin the sequence from one function and its associated setting options to another. (Please refer to the table below to cross reference the functions with the audible tones).
5. When the desired tone for the function and setting option is reached, move the throttle stick down to its **minimum** position. ESC will emit two beeps (**) confirming the new setting has been stored.
6. The ESC only allows the setting of one function at a time.
Therefore should you require making changes to other function, disconnect the battery pack and wait 5 seconds to reconnect the battery and repeat the above steps.

General Safety Precautions

- Do not install the propeller (fixed wing) or drive pinion (helicopter) on the motor when you test the ESC and motor for the first time to
verify the correct settings on your radio. Only install your propeller or pinion after you have confirmed that the settings on your radio is correct.

- Never use ruptured or punctured battery cells.
- Never use battery packs that are known to overheat.
- Never short circuit battery or motor terminals.
- Always use proper insulation material for cable insulation.
- Always use proper cable connectors.
- Do not exceed the number of cells or servos specified by the ESC.Wrong battery polarity will damage the ESC and void the warranty.

- Install the ESC in a suitable location with adequate ventilation for cooling. This ESC has a built-in over temperature cutoff protection feature that will immediately cut power to the motor once the ESC temperature exceeds the 230 Deg F/ 110 Deg C high temperature limit.
- Use only batteries that are supported by the ESC and ensure the correct polarity before connecting.
- Switch your Transmitter ON and ensure the throttle stick is in the minimum position before connecting the battery pack.
- Never switch your transmitter **OFF** while the battery is connected to your ESC.
- Only connect your battery pack just before flying and do not leave your battery pack connected after flying.
- Handle your model with extreme care once the battery pack is connected and keep away from the propeller at all times. Never stand in-line or directly in front of any rotating parts.
- Do not immerse the ESC underwater while powered up.
- Do fly at a designated flying site and abide by the rules and guidelines set by your flying club.

Trouble Shooting

Trouble	Possible Reason	Action
Motor doesn't work, but there are audible tones of automatically detection of the number of cells after powering up ESC.	The ESC throttle calibration has not set up.	Set up the ESC throttle calibration.
Motor doesn't work and no audible tone emitted after connecting the battery. Servos are not working either.	Poor/loose Connection between battery Pack and ESC.	Clean connector terminals or replace connector.
	No power	Replace with a freshly charged battery pack
	Poor soldered connections(dry joints)	Re-solder the cable connections
	Wrong battery cable polarity	Check and verify cable polarity
	ESC throttle cable connected to receiver in the reverse polarity	Check the ESC cable connected to the ESC to ensure the connectors are in the correct polarity.
	Faulty ESC	Replace ESC
Motor doesn't work and no audible tone emitted after connecting the battery BUT servos are working.	Poor / loose connection between ESC and motor	Clean connector terminals or replace connectors
	Burnt motor coils	Replace motor
Motor doesn't work after powering up the ESC. An alert tone with two beeping bones followed by a short pause (** ** ** **) is emitted.	Poor soldered connections(dry joints)	Re-solder the cable connections
	The battery pack voltage is not within the acceptable range.	Replace with a freshly charged battery pack Check battery pack voltage

Trouble	Possible Reason	Action
Motor doesn't work after powering up the ESC. An alert tone with a single beeping tone followed by a short pause (* * * *) is emitted.	The ESC is unable to detect the normal throttle signal from the receiver	Check and verify that the ESC cable is connected to the Throttle channel on the receiver. Check the transmitter and receiver to verify that there is throttle signal output. (Connect a spare servo to verify throttle channel operation)
Motor doesn't work after powering up the ESC .An alert tone with continuous beeping tones (****) is emitted.	The throttle stick is not in the minimum position at power up.	Move the throttle stick to the minimum position.

Motor doesn't work after powering up the ESC. ESC emits two long audible tones followed by two short beeps (_ _ * *)	Reversed throttle channel caused the ESC to enter the programming mode.	Enter the servo reverse menu on your transmitter and reverse the throttle channel. Note: For Futaba radios set the throttle channel to Reverse.

Trouble	Possible Reason	Action
Motor runs in reverse rotation Motor stops running in flight.	Wrong cables polarity between the ESC and the motor.	Swap any two of the three cable connections between the ESC and the Motor or access the Motor Rotation function via the ESC programming mode and change the pre-set parameters.
	Lost throttle signal	Check proper operation of the radio equipment. Check the placement of the ESC and the Receiver and check the route of the receiver's aerial and ESC cables to ensure there is adequate separation to prevent RF interference . Install a ferrite ring on the ESC's throttle cable.
	Battery Pack voltage has reached the Low Voltage Protection threshold.	Land the model immediately and replace the battery pack.
	Possible bad cable connection	Check and verify the integrity of the cable connections

Trouble	Possible Reason	Action
Motor restarts abnormally ESC Overheats	Possible RF Interference at the flying field.	The normal operation of the ESC may be susceptible to surrounding RF interference. Restart the ESC to resume normal operation on the ground to verify recurrence. If the problem persists, test the operation of the ESC at a different flying field.
	Inadequate Ventilation	Relocate the ESC to allow better ventilation
	Servos drawing too much current and over loading the ESC.	Use servos that are adequately sized for the ESC. The maximum BEC current drawn should be within the BEC limits.
	Over sized motor or prop	Prop down or resize the motor

J-POWER GROUP CO., LIMITED

4th A4 Building, Xinjianxin Technology Industrial Park, Fengxin Road
Guangming Town, Bao'an, Shenzhen City, China 518107
Phone: +86 755 3369 9201
Fax: +86 755 3369 9203
www.jpower.hk